FCC 47 CFR PART 15 SUBPART B

TEST REPORT

FOR

Network Video Recorder

Model : NP-2160,NP-20X0, NP-2XX0,NVP-20X0, NVP-200X, NVP-2XX0, NVR-BK2XX(X=0~16)

Trade Name: NUUO

Issued to

NUUO Inc.
10F., No.285, Sec. 2, Wenhua Rd. Banqiao Dist., New Taipei City 220, Taiwan (R.O.C.)

Issued by

Global Certification Corp.
No.146, Sec. 2, Xiangzhang Rd., Xizhi Dist.,New Taipei City 221, Taiwan (R.O.C.)

Testing Laboratory
1640

Revision History

Revision	No.	Report Number	Issue Date	Description	Author/ Revised by
1.	810203	810203	Feb. 05, 2018	Original Report	Judy

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1. GENERAL INFORMATION

Applicant	:	NUUO Inc.
Address	:	10F., No.285, Sec. 2, Wenhua Rd. Banqiao Dist., New Taipei City 220, Taiwan (R.O.C.)
Manufacturer	:	NUUO Inc.
Address	:	10F., No.285, Sec. 2, Wenhua Rd. Banqiao Dist., New Taipei City 220, Taiwan (R.O.C.)
EUT	:	Network Video Recorder
Model No.	:	NP-2160,NP-20X0, NP-2XX0,NVP-20X0, NVP-200X, NVP-2XX0, NVR-BK2XX(X=0~16)
Trade Name	:	NUUO
Model Differences	:	**The major electrical and mechanical constructions of series models are identical to the basic model, except different softwore and for ODM. The model, NP-2160 is the testing sample, and the final test data are shown on this test report.**

Is herewith confirmed to comply with the requirements set out in the FCC Rules, Regulations Part 15 Subpart B and CISPR 22 and the measurement procedures were according to ANSI C63.4:2014. The said equipment in the configuration described in this report shows the maximum emission levels emanating from equipment are within the compliance requirements.

FCC 47 CFR Part 15 Subpart B **Class B**

Tested By:

Feb. 05, 2018
Date

Eason Hsu.

Eason Hsu, Engineer

Approved by:

Feb. 05, 2018
Date

Adam Chou

Adam Chou, Manager

Designation Number: TW1089

1.1 DESCRIPTION OF THE TESTED SAMPLES

EUT

EUT Type	:	Normal Type
EUT Name	:	Network Video Recorder
Model Number	:	NP-2160
EUT Power Type	:	☐ AC Power ☐ DC Power ☐ DCV from PC ☑ DCV from Adaptor
EUT Power Rating	:	I/P: 100~240Vac, 50~60Hz, 1.8A O/P: 12Vdc ⎓ 5.0A, 60W

The frequency of the EUT

Operating Frequency	:	2GHz
EUT Received Date	:	Dec. 26, 2017
EMC Test Completed Date	:	Jan. 31, 2018

1.2 I/O PORT OF THE EUT

I/O port type	Q'ty	Tested with
USB Type A Port	5	5
VGA Port	1	1
HDMI Port	1	1
RS232 Port	1	1
LAN Port	2	2
eSATA Port	1	1
Autio Port	3	3

1.3 TEST METHODOLOGY

EUT SYSTEM OPERATION

1.The EUT was configured according to ANSI C63.4-2014 & CISPR 22 Class B.

2.All I/O ports are connected to the appropriate peripherals.

3.Photos of test configuration please refer to appendix 1.

4.Perform the EMC testing procedures, and measure the maximum emission noise.

DECISION OF FINAL TEST MODE

Mode : Recording 1920*1080

1.4 DESCRIPTION OF THE SUPPORT EQUIPMENTS

Setup Diagram

See test photographs attached in appendix I for the actual connections between EUT and support equipment.

Support Equipment

Peripherals Devices:

OUTSIDE SUPPORT EQUIPMENT							
No.	Equipment	Model	Serial No.	FCC ID/ BSMI ID	Trade name	Data Cable	Power Cord
1.	MONITOR	288P6L	AU5A142 1009987	DOC	PHILIPS	Shielded 1.8m	Unshielded 1.8m
2.	MONITOR	P2415Qb	CN-OGTT PW-74261 -SCN-06G L	DOC	Dell	Shielded 1.8m	Unshielded 1.8m
3.	USB3.0 storage	TS8GJF700	N/A	DOC	TRANSCE ND	Shielded 1.0m	N/A
4.	USB3.0 storage	TS8GJF700	N/A	DOC	TRANSCE ND	Shielded 1.0m	N/A
5.	USB3.0 storage	TS8GJF700	N/A	DOC	TRANSCE ND	Shielded 1.0m	N/A
6.	MOUSE	62278	622783291 607150580 7	DOC	steelseries	Unshielded 1.8m / USB	N/A
7.	KEY BOARD	SK-8115	N/A	DOC	DELL	Shielded 1.2m / USB	N/A
8.	EAR PHONE	E220	N/A	N/A	DeeJay	Unshielded 2m	N/A
9.	eSATA	N/A	N/A	N/A	N/A	Unshielded 0.5m	N/A
10.	HDD	N/A	N/A	N/A	Akiti	N/A	N/A
11.	NB	P L41SA1	SZSL41S A1745005 18	DOC	ELITEGRO UP	Unshielded 15m	Unshielded 1.8m
12.	CCD	E911	N/A	N/A	ACTi	Unshielded 1.8m	N/A
EUT ACCESSORIES/COMPONEBNTS							
No.	Equipment	Model	Serial No.	FCC ID/ BSMI ID	Trade name	Data Cable	Power Cord
1.	PCB1	NEW N8-V0.1	N/A	N/A	N/A	N/A	N/A
2.	PCB2	FP-PWR REV:2.0	N/A	N/A	NUUO	N/A	N/A
3.	PCB3	FP-USB REV:1.0	N/A	N/A	NUUO	N/A	N/A

4.	Adapter	PA1060-120T IA500	N/A	VOC	Powertron	N/A	Unshielded 1.8m
5.	FAN	MF40101V1-1Q01U-S99	N/A	N/A	SUNON	N/A	N/A
6.	remote controller	N/A	N/A	N/A	NUUO	N/A	N/A
7.	Power Cable	N/A	N/A	N/A	N/A	N/A	Unshielded 0.8m
8.	DC Cable	N/A	N/A	N/A	N/A	Unshielded 1.4m	N/A

Note: All the above equipment /cable were placed in worse case position to maximize emission signals during emission test.

Grounding: Grounding was in accordance with the manufacturer's requirement and conditions for the intended use.

1.5 FEATURES OF EUT:

Please refer to user manual or product specification.

2. INSTRUMENT AND CALIBRATION

2.1 MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in the report has been calibrated once a year or in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

2.2 TEST AND MEASUREMENT EQUIPMENT

The following list contains measurement equipment used for testing. The equipment conforms to the requirement of CISPR 16-1, ANSI C63.2 and other required standards.

Calibration of all test and measurement, including any accessories that may effect such calibration, is checked frequently to ensure the accuracy. Adjustments are made and correction factors are applied in accordance with the instructions contained in the respective.

TABLE 1 LIST OF TEST AND MEASUREMENT EQUIPMENT

Conducted Emission Measurement (Test Site ID: GCC_CE-01)					
Instrument	Manufacturer	Model No.	Serial No.	Calibration Due Date	Note
EMC Test Receiver	R&S	ESCI	100438	Dec. 08, 2018	
LISN #1	SCHWARZBECK	NNLK8121	550213	Aug. 19, 2018	For EUT
LISN #2	EMCO	Feb-25	9001-1400	N/A	For Support Unit
RF Cable	Huber+Suhner	RG223/U	Cable-001	Dec.17, 2018	
Impedance Stabilization	Teseq GmbH	ISNT800	23334	Nov. 08, 2018	
Absorbing Clamp	COM-POWER	AB-050	421915	Aug. 17,2019	
RF Cable	Huber+Suhner	5D-FB	CABLE-007	Aug. 16,2019	
Test Software	AUDIX	E3	6.2008-10-2C	N/A	
3m/10m Open Area Test Site Radiated Emission Measurement (Test Site ID: GCC_RE-01)					
Instrument	Manufacturer	Model No.	Serial No.	Calibration Due Date	Note
EMC Test Receiver	R&S	FSV40	101088	Sep. 28, 2018	
Bilog Antenna	SUNOL	JB1	A052104	Oct. 25, 2018	
RF Cable	JYE BAO	RG214/U	Cable-002	Sep. 27, 2018	
Pre-Amplifier	WIRELESS	FPA-6592G	60021	Oct. 20, 2018	
Test Software	AUDIX	E3	6.2009-5-7a(n)gcc	N/A	
966_3m EMC Chamber Radiated Emission Measurement (Test Site ID: GCC_RE-02 and GCC_RE-02G)					
Instrument	Manufacturer	Model No.	Serial No.	Calibration Due Date	Note
EMC Test Receiver	R&S	FSV40	101088	Sep. 28, 2018	
Bilog Antenna	SUNOL	JB1	A052204	Feb. 21, 2018	
Pre-Amplifier	WIRELESS	FPA-6592G	60028	Sep. 28, 2018	

RF Cable_NSA_Rx	HUBER + UHNER	RG213/U	Cable-004	Sep. 27, 2018	
Double Ridged Guide HORN ANTENNA	EST.LINDGREN	3117	119028	Apr.18, 2019	
SMA_Cable	HUBER SUHNER	EMC104-SM-SM-1000	170238	Mar. 05, 2018	
RF Cable (sVSWR_TX)	Huber Suhenr	SUCOFLEX 104	293864/4	Mar. 05, 2018	
Microwave Preamplifier	EMCINSTRUMENT	EMC051845	980059	Apr. 17, 2019	
TEST SOFTWARE	AUDIX	E3	6.101222	N/A	

※ Calibration interval of instruments listed above is one year

2.3 TEST PERFORMED

Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver which bandwidth is set at 9KHz.

Radiated emissions were invested over the frequency range from 30MHz to 1000MHz using a receiver which bandwidth is set at 120KHz. Radiated measurement was performed at distance that from an antenna to EUT is 10meters.

2.4 APPENDIX

Appendix A: Measurement Procedure for Main Power Port Conducted Emissions

The measurements are performed in a Global lab's room; The EUT was placed on non-conductive 1.0m x 1.5m table, which is 0.8 meters above an earth-grounded.

Power to the EUT was provided through the LISN which has the Impedance (50ohm/50uH) vs. Frequency Characteristic in accordance with the standard. Powers to the LISNs were filtered to eliminate ambient signal interference and these filters were bonded to the ground plane. Peripheral equipment required to provide a functional system (support equipment) for EUT testing was powered from the second LISN through a ganged, metal power outlet box which is bonded to the ground plane at the LISN.

If the EUT is supplied with a flexible power cord, the power cord length in excess of the distance separating the EUT from the LISN shall be folded back and forth at the center of the lead so as to form a bundle not exceeding 40cm in length. If the EUT is provided with a permanently coiled power cord, bundling of the cord is not required. If the EUT is supplied without a power cord, the EUT shall be connected to the LISN by a power cord of the type specified by the manufacturer which shall not be longer than 1 meter. The excess power cord shall be bundled as described above. If a non-flexible power cord is provided with the EUT, it shall be cut to the length necessary to attach the EUT to the LISN and shall not be bundled.

The interconnecting cables were arranged and moved to get the maximum measurement. Both the line of power cord, hot and neutral, were measured.

The highest emissions were analyzed in details by operating the spectrum analyzer in fixed tuned mode to determine the nature of the emissions and to provide information which could be useful in reducing their amplitude.

Appendix B: Test Procedure for Radiated Emissions

Preliminary Measurements in the Anechoic Chamber

The radiated emissions are initially measured in the anechoic chamber at a measurement distance of 3 meters. Desktop EUT are placed on a wooden stand 0.8 meter in height. The measurement antenna is 3 meters from the EUT. The test setup in anechoic chamber is the same as open site. The turntable rotated 360°. The antenna height is 1m. The primary objective of the radiated measurements in the anechoic chamber is to identify the frequency spectrum in the absence of the electromagnetic environment existing on the open test site. The frequencies can then be pre-selected on the open test site to obtain the corresponding amplitude. The initial scan is made with the spectrum analyzer in automatic sweep mode. The spectrum peaks are then measured manually to determine the exact frequencies.

Measurements on the Open Site or Chamber

The radiated emissions test will then be repeated on the open site or chamber to measure the amplitudes accurately and without the multiple reflections existing in the shielded room. The EUT and support equipments are set up on the turntable. Desktop EUT are set up on a wooden stand 0.8 meter above the ground.

For the initial measurements, the receiving antenna is varied from 1-4 meter height and is changed in the vertical plane from vertical to horizontal polarization at each frequency. Both reading are recorded with the quasi-peak detector with 120KHz bandwidth. For frequency between 30 MHz and 1000MHz, the reading is recorded with peak detector or quasi-peak detector. For the frequency range is above 1 GHz, the EUT was positioned such that distance from antenna to the EUT is 3 meters. The bandwidth set on the field strength is 1 MHz when the frequency range is above 1GHz.

At the highest amplitudes observed, the EUT is rotated in the horizontal plane while changing the antenna polarization in the vertical plane to maximize the reading. The interconnecting cables were arranged and moved to get the maximum measurement. Once the maximum reading is obtained, the antenna elevation and polarization will be varied between specified limits to maximize the readings.

Appendix C: Warning Labels

Label Requirements

A Class B digital device subject to certification by the FCC shall carry a warning label which includes the following statement:

*** * * W A R N I N G * * ***

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Appendix D: Warning Statement

Statement Requirements

The operator's manual for a Class B digital device shall contain the following statements or their equivalent:

*** * * W A R N I N G * * ***

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment This equipment generates, uses, and can radiate radio frequency energy and, if not installed and uses in accordance with the instruction manual, may cause harmful interference to radio communications Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Notice: The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equivalent.

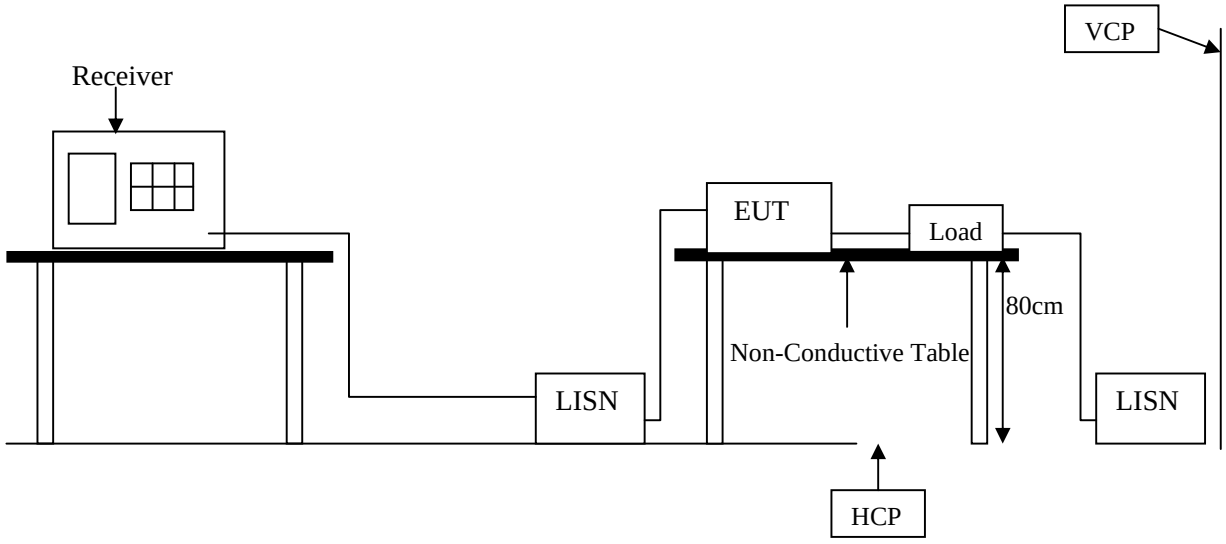
*** * * * * * * * ***

If the EUT was tested with special shielded cables the operator's manual for such product shall also contain the following statements or their equivalent:

Shielded interface cables and/or AC power cord, if any, must be used in order to comply with the emission limits.

3. CONDUCTED EMISSION MEASUREMENT

3.1 TEST SETUP



3.2 LIMIT

Frequency range (MHz)	CLASS A		CLASS B		Receiver RBW
	QP dB(uV)	Average dB(uV)	QP dB(uV)	Average dB(uV)	
0.15-0.5	79 dBuV	66 dBuV	66 - 56 dBuV	56 - 46 dBuV	9KHz
0.5-5.0	73 dBuV	60 dBuV	56 dBuV	46 dBuV	9KHz
5.0-30.0	73 dBuV	60 dBuV	60 dBuV	50 dBuV	9KHz

Remark: In the above table, the tighter limit applies at the band edges.

3.3 TEST PROCEDURE

The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). It provides a 50 ohm / 50 μH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50 ohm / 50 μH coupling impedance with 50 ohm termination. (Please refer to the block diagram of the test setup and photograph.)

Both sides of AC line are checked for the maximum conducted emission interference. In order to find the maximum emissions, the relating positions of equipment and all of the interference cables must be changed according to CISPR22 regulation: The measurement procedure on conducted emission interference.

The resolution bandwidth of the field strength meter is set at 9KHz.

3.4 TEST SPECIFICATION

ANSI C63.4:2014 & CISPR 22 Class B

3.5 TEST DATA:

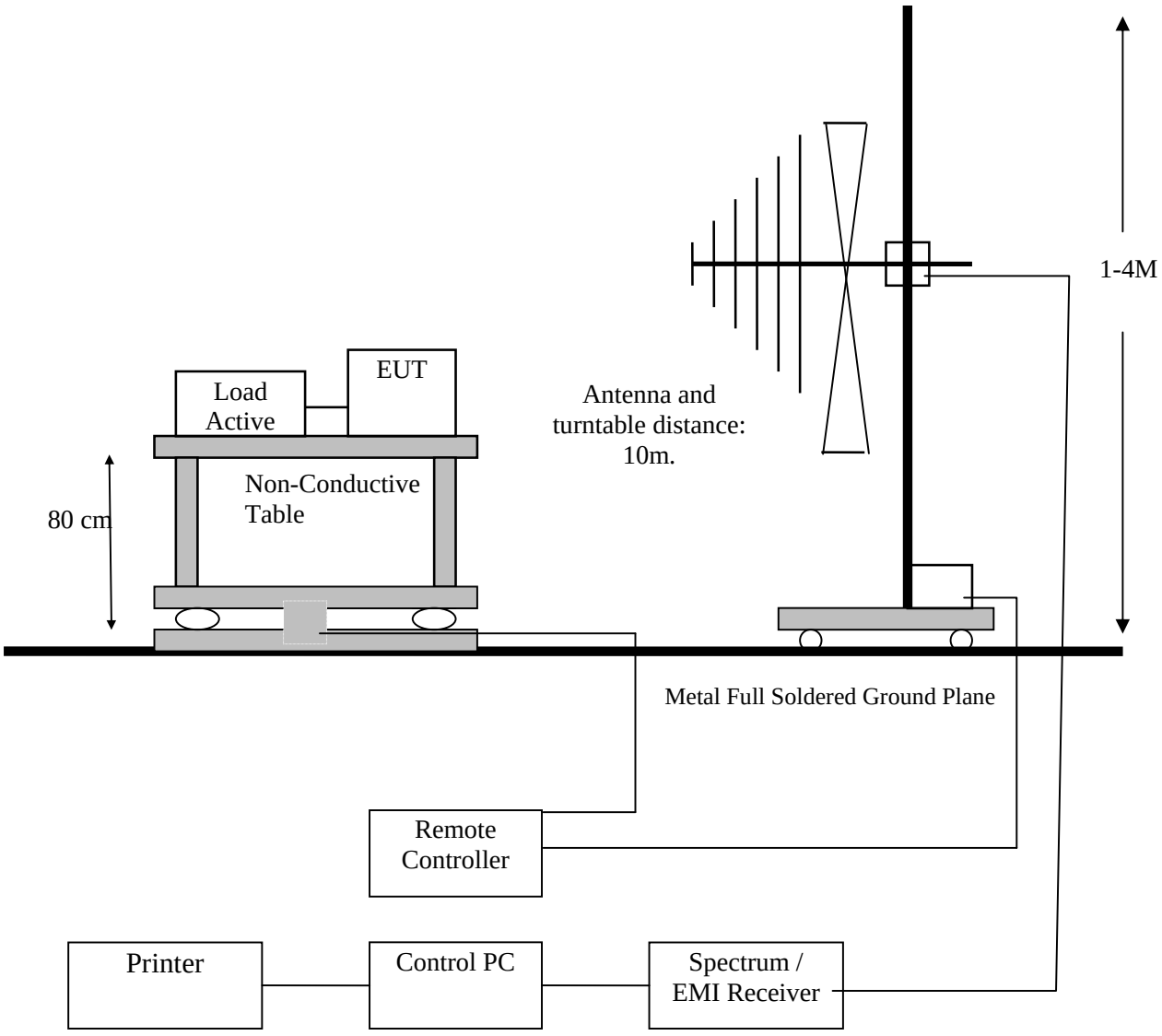
Please refer to appendix 2.

3.6 RESULT:

PASS

4. RADIATED EMISSION MEASUREMENT

4.1 TEST SETUP



4.2 LIMIT

Frequency	Class A		Class B		Receiver RBW
MHz	Distance (Meter)	Limit dBμV/m	Distance (Meter)	Limit dBμV/m	
30 ~ 230	10	40	10	30	120KHz
230 ~ 1000	10	47	10	37	120KHz

Class A

Frequency range MHz	Average limit dB(μV/m)	Peak limit dB(μV/m)	Receiver RBW
Above 1000	60	80	1MHz

Class B

Frequency range MHz	Average limit dB(μV/m)	Peak limit dB(μV/m)	Receiver RBW
Above 1000	54	74	1MHz

Remark: In the above table, the tighter limit applies at the band edges

4.3 TEST PROCEDURE

The EUT and its simulators are placed on turn table, non-conductive and wooden table, which is 0.8 meter above ground. The turn table rotates 360 degree to determine the position of the maximum emission level. The EUT was positioned such that distance from antenna to the EUT is 10 meters(OATS) or 3 meters(SAC). For the frequency range is above 1 GHz, the EUT was positioned such that distance from antenna to the EUT is 3 meters.

The antenna is moved up and down between 1 meter to 4 meter to receive the maximum emission level.

Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission, all of the interference cables must be manipulated according to CISPR22 regulation: the test procedure of the radiated emission measurement.

The bandwidth set on the field strength is 120 KHz when the frequency range is below 1GHz. The bandwidth set on the field strength is 1 MHz when the frequency range is above 1GHz.

4.4 TEST SPECIFICATION

ANSI C63.4:2014 & CISPR 22 Class B

4.5 TEST DATA:

Please refer to appendix 2.

4.6 RESULT: PASS

The radiated mission test was PASS at minimum margin :

(30MHz~1GHz)
Horizontal 843.83 MHz/ Level 44.02 dBuV/m/ Over limit -2.98 dB,
Antenna Height 1.6 Meters, Turn Table 125 degrees.

(1GHz~6GHz)
Vertical 5195.00 MHz/ Level 44.11 dBuV/m/ Over limit -9.89 dB,
Antenna Height 2.0 Meters, Turn Table 130 degrees.

5. EMC MODIFICATION & ESTIMATED MEASUREMENT UNCERTAINTY

5.1 EMC MODIFICATION

No additional EMC solution was made during the Compliance testing.

5.2 ESTIMATED MEASUREMENT UNCERTAINTY

The estimated measurement uncertainty is calculated in accordance with CISPR16-4-2, the total uncertainty for this test is listed as below:

Uncertainty of Conducted Emission Measurement (9KHz~30MHz)

Contribution	Probability Distribution	9KHz – 30MHz
Measuring uncertainty for a level of confidence of 95% U=2Ue(y)	Normal (k=2)	±3.2 dB

Uncertainty of Radiated Emission Measurement (30MHz~1GHz)

Contribution	Probability Distribution	30MHz~1GHz
Measuring uncertainty for a level of confidence of 95% U=2Ue(y)	Normal (k=2)	±2.7 dB

Uncertainty of Radiated Emission Measurement (1GHz~18GHz)

Contribution	Probability Distribution	1GHz~18GHz
Measuring uncertainty for a level of confidence of 95% U=2Ue(y)	Normal (k=2)	±4.2 dB

SAMPLE OF FCC VERIFICATION LABEL 1

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference. And (2) this device must accept any interference received, including interference that may cause undesired operation.

SAMPLE OF FCC DOC LABEL 2

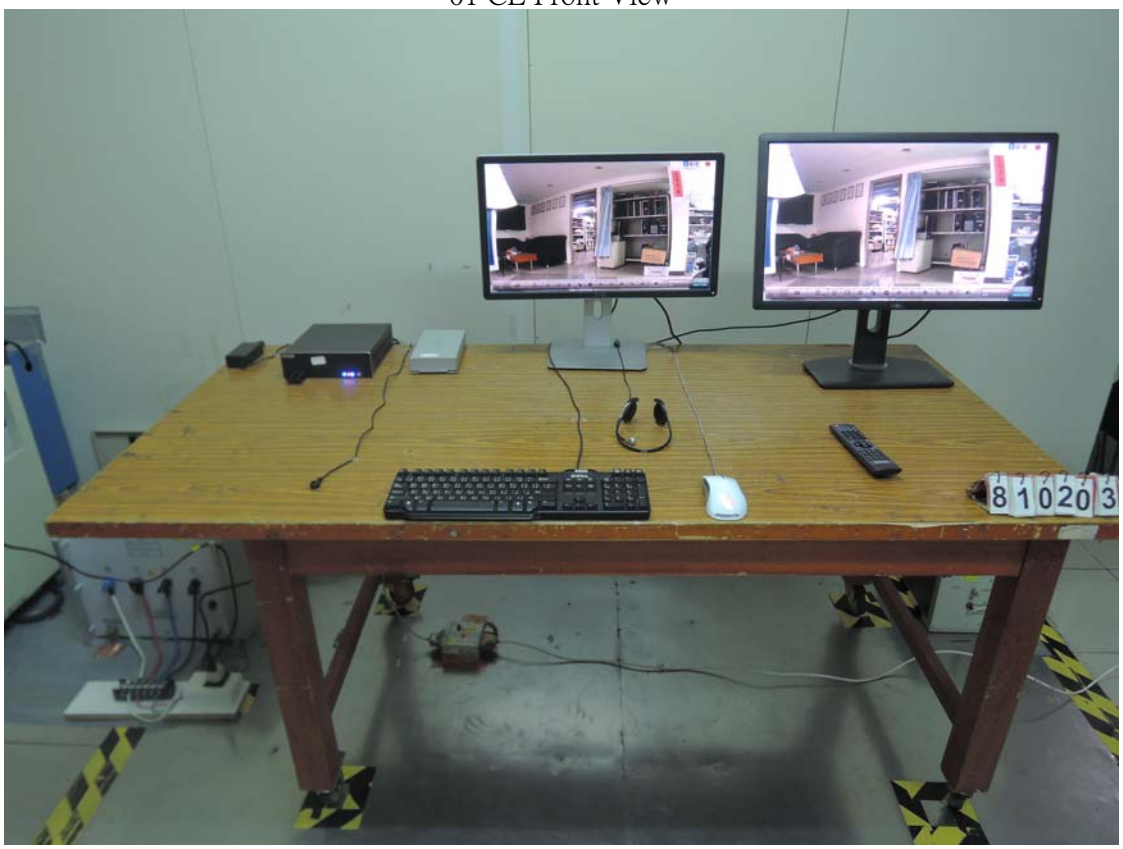
FC

Trade Name
Model Number

Appendix 1

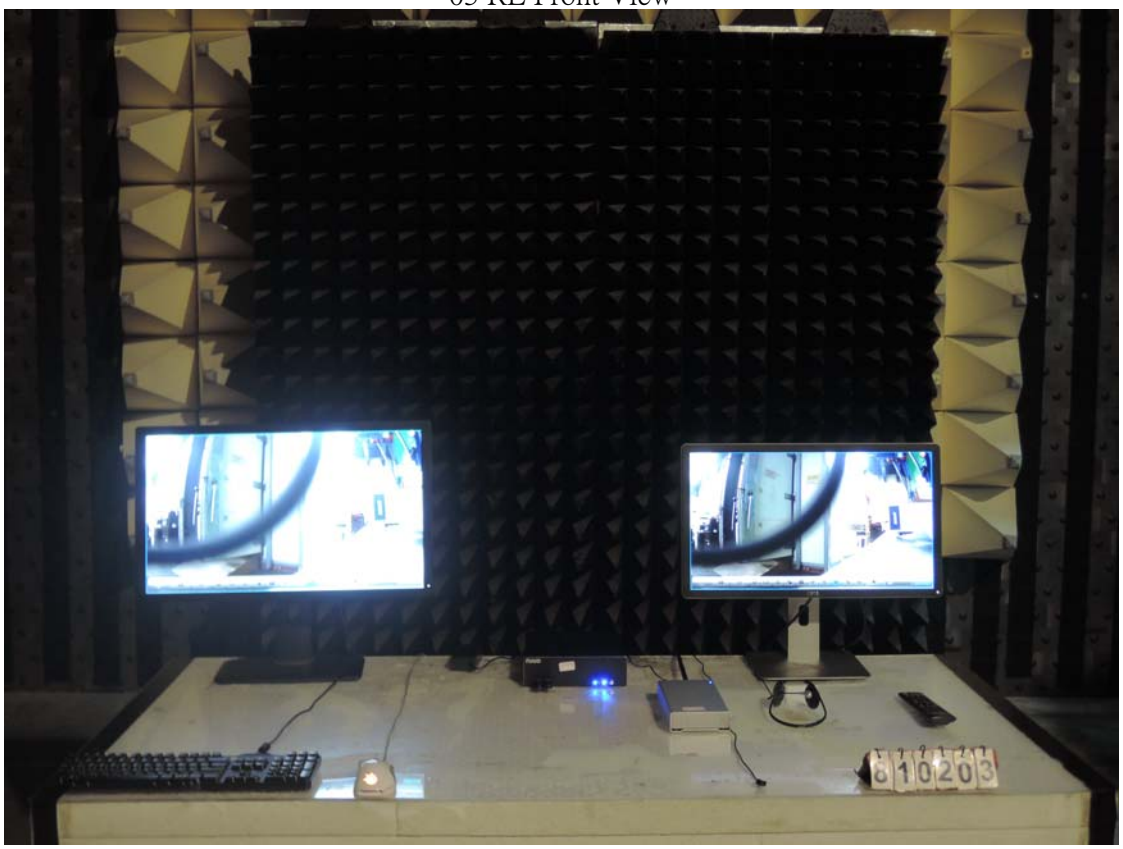
PHOTOS OF TEST CONFIGURATION

01 CE Front View

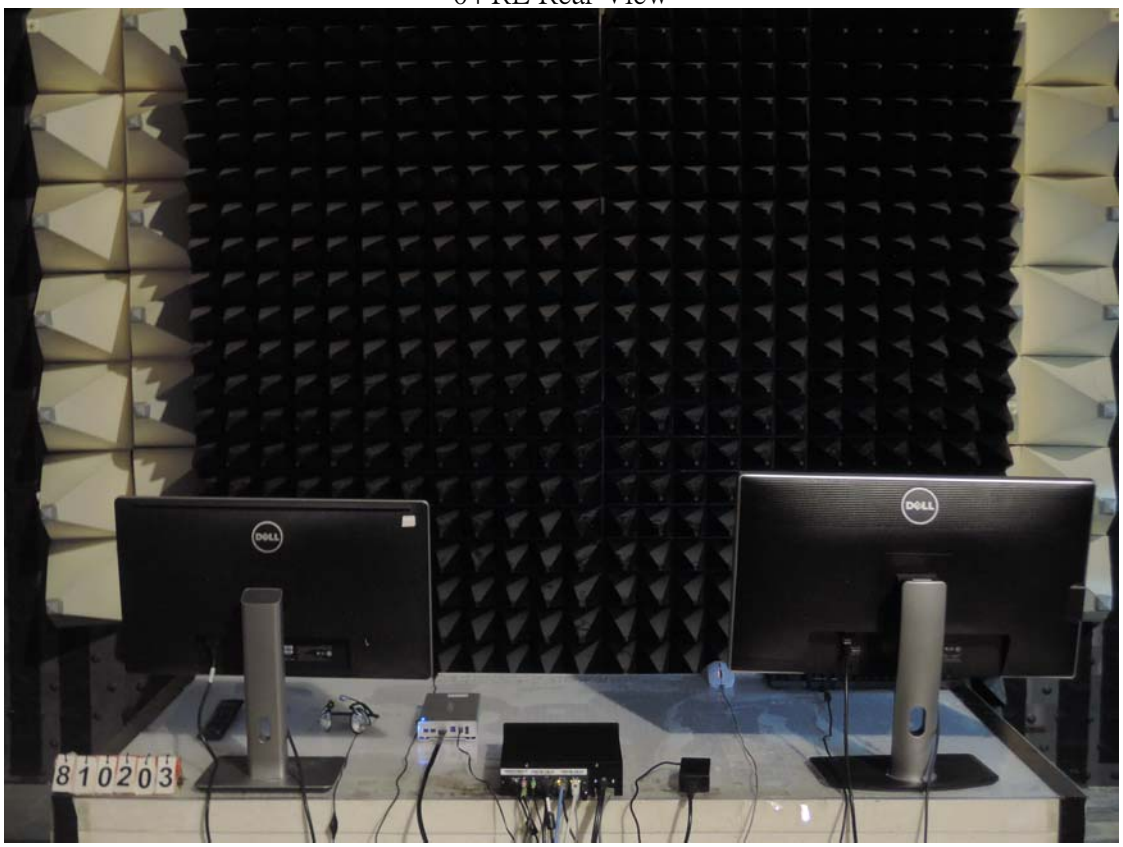


02 CE Rear View

03 RE Front View



04 RE Rear View



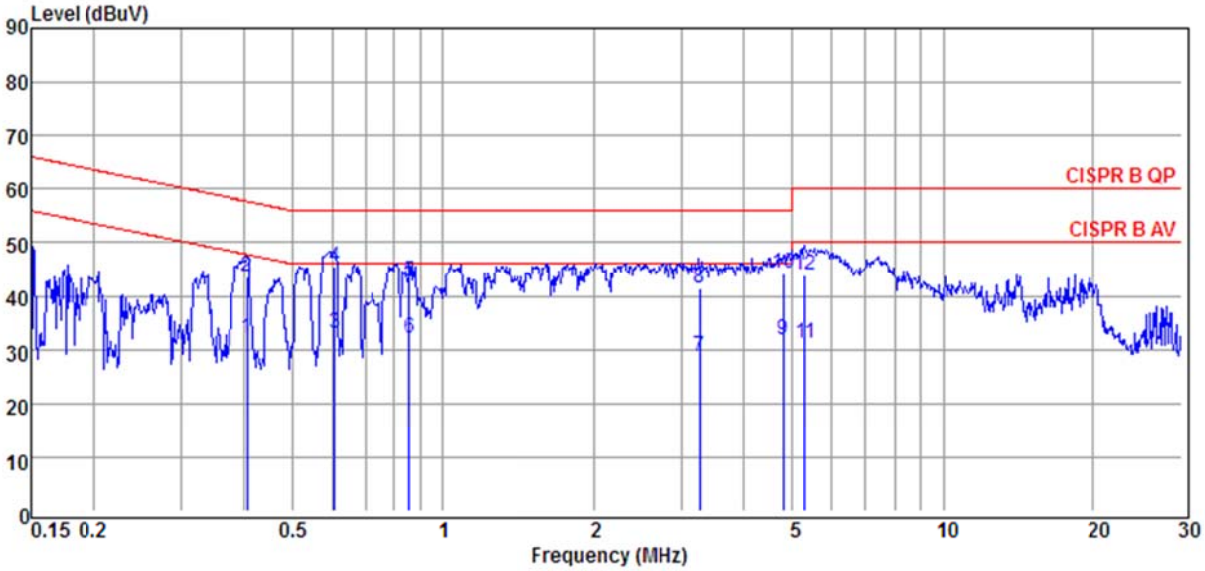
Appendix 2

TEST DATA

Date:2018-1-19

Site : GCC_CE_01
RBW : 9 KHz VBW : 300 KHz SWT : Auto
EUT : Network Video Recorder
Mode : Recording 1920*1080
Voltage : 120Vac 60Hz

Regulations : CISPR B QP
Phase : LINE
Model : NP2160
Temp/Humidity : 20℃ / 70%
Memo :



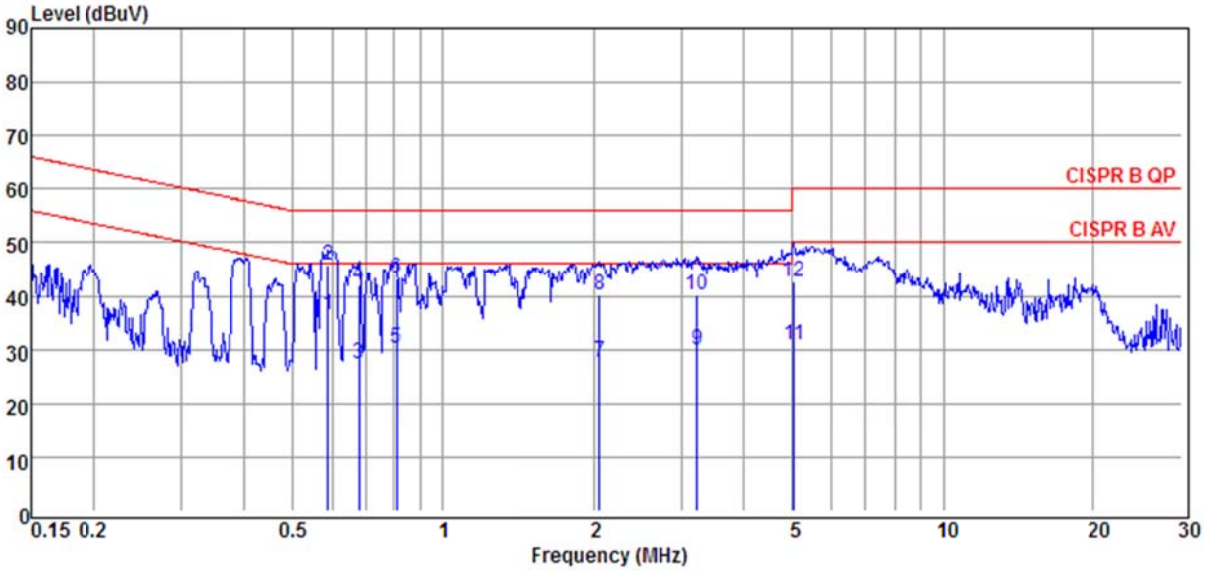
	Freq MHz	Meter Level dBuV	System Factor dB	Cable Loss dB	LISN Factor dB	Real Level dBuV	Limit Line dBuV	Margin dB	Remark
1	0.41	11.81	20.16	20.14	0.02	31.97	47.73	-15.76	Average
2	0.41	23.47	20.16	20.14	0.02	43.63	57.73	-14.10	QP
3	0.61	12.93	20.18	20.16	0.02	33.11	46.00	-12.89	Average
4	0.61	25.36	20.18	20.16	0.02	45.54	56.00	-10.46	QP
5	0.86	22.52	20.21	20.18	0.03	42.73	56.00	-13.27	QP
6	0.86	11.98	20.21	20.18	0.03	32.19	46.00	-13.81	Average
7	3.26	8.38	20.34	20.28	0.06	28.72	46.00	-17.28	Average
8	3.26	21.10	20.34	20.28	0.06	41.44	56.00	-14.56	QP
9	4.80	11.44	20.42	20.33	0.09	31.86	46.00	-14.14	Average
10	4.80	23.82	20.42	20.33	0.09	44.24	56.00	-11.76	QP
11	5.31	10.71	20.45	20.35	0.10	31.16	50.00	-18.84	Average
12	5.31	23.60	20.45	20.35	0.10	44.05	60.00	-15.95	QP

System Factor = Cable Loss + LISN Factor
Cable Loss = Pulse limiter + Cable Insertion Loss
Real Level = Meter Level + System Factor
Margin = Real Level - Limit Line

Date:2018-1-19

Site : GCC_CE_01
RBW : 9 KHz VBW : 300 KHz SWT : Auto
EUT : Network Video Recorder
Mode : Recording 1920*1080
Voltage : 120Vac 60Hz

Regulations : CISPR B QP
Phase : NEUTRAL
Model : NP2160
Temp/Humidity : 20℃ / 70%
Memo :



	Freq MHz	Meter Level dBuV	System Factor dB	Cable Loss dB	LISN Factor dB	Real Level dBuV	Limit Line dBuV	Margin dB	Remark
1	0.59	16.38	20.19	20.16	0.03	36.57	46.00	-9.43	Average
2	0.59	25.74	20.19	20.16	0.03	45.93	56.00	-10.07	QP
3	0.68	7.14	20.21	20.17	0.04	27.35	46.00	-18.65	Average
4	0.68	21.75	20.21	20.17	0.04	41.96	56.00	-14.04	QP
5	0.81	9.97	20.22	20.18	0.04	30.19	46.00	-15.81	Average
6	0.81	22.95	20.22	20.18	0.04	43.17	56.00	-12.83	QP
7	2.05	7.48	20.29	20.23	0.06	27.77	46.00	-18.23	Average
8	2.05	20.01	20.29	20.23	0.06	40.30	56.00	-15.70	QP
9	3.22	9.42	20.36	20.28	0.08	29.78	46.00	-16.22	Average
10	3.22	19.80	20.36	20.28	0.08	40.16	56.00	-15.84	QP
11	5.03	10.38	20.45	20.34	0.11	30.83	50.00	-19.17	Average
12	5.03	22.09	20.45	20.34	0.11	42.54	60.00	-17.46	QP

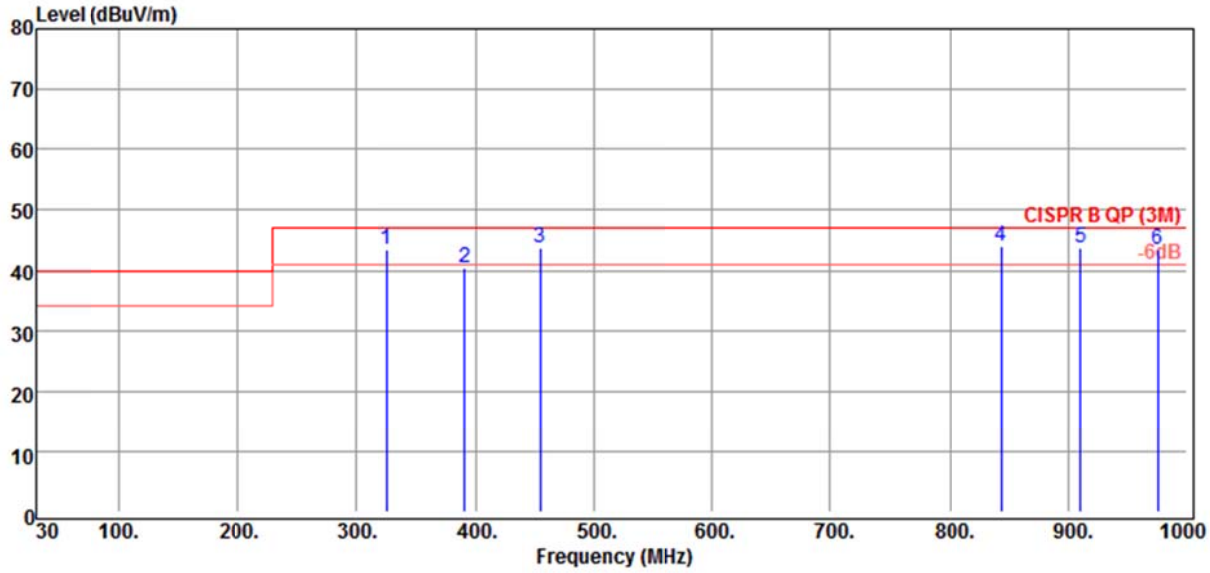
System Factor = Cable Loss + LISN Factor
Cable Loss = Pulse limiter + Cable Insertion Loss
Real Level = Meter Level + System Factor
Margin = Real Level - Limit Line

Date:2018-1-22

Site : GCC_RE
RBW : 120 KHz VBW : 300 KHz SWT : Auto
EUT : Network Video Recorder
Mode : Recording 1920*1080
Voltage : 120Vac 60Hz

Regulations : CISPR B QP (3M)
Polarity : HORIZONTAL

Model : NP-2160
Temp/Humidity : 23℃ / 55%
Memo :



	Freq MHz	Meter Level dBuV	System Factor dB/m	Cable Loss dB	Antenna Factor dB/m	Preamp Gain dB	Real Level dBuV/m	Limit Line dBuV/m	Margin dB	Remark
1	325.85	49.79	-6.30	1.90	20.62	28.82	43.49	47.00	-3.51	QP
2	390.84	44.78	-4.47	2.12	22.08	28.67	40.31	47.00	-6.69	QP
3	454.86	46.46	-2.74	2.30	23.39	28.43	43.72	47.00	-3.28	QP
4	843.83	38.46	5.56	3.30	28.35	26.09	44.02	47.00	-2.98	QP
5	910.76	36.98	6.89	3.47	29.11	25.69	43.87	47.00	-3.13	QP
6	975.75	35.44	8.14	3.61	29.81	25.28	43.58	47.00	-3.42	QP

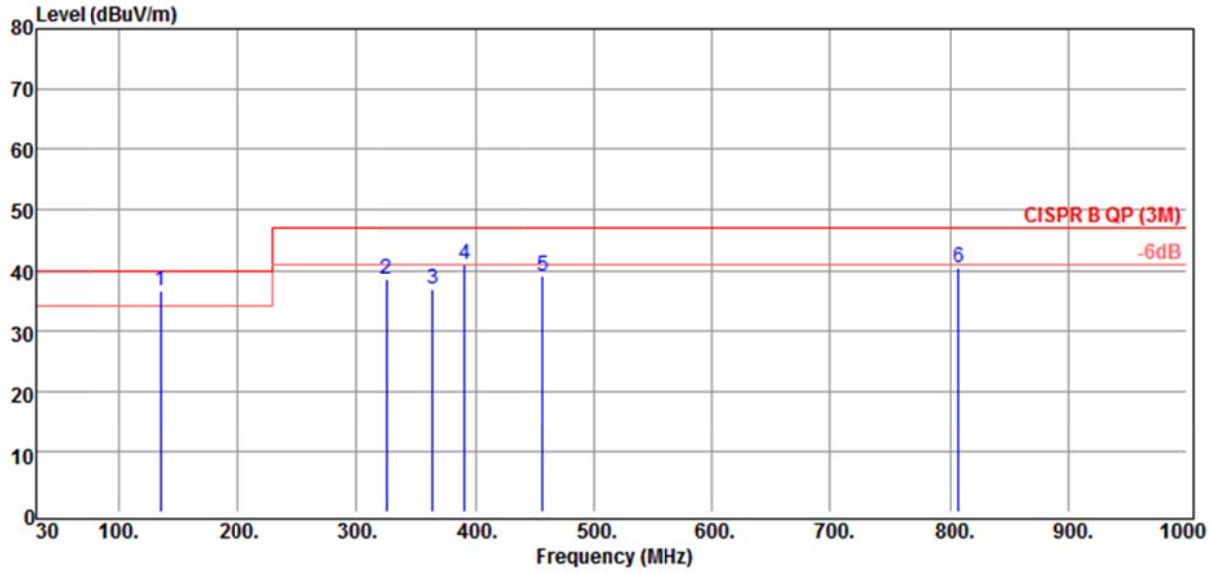
System Factor = Cable Loss + Antenna Factor - Preamp Gain
Real Level = Meter Level + System Factor
Margin = Real Level - Limit Line

Date:2018-1-22

Site : GCC_RE
RBW : 120 KHz VBW : 300 KHz SWT : Auto
EUT : Network Video Recorder
Mode : Recording 1920*1080
Voltage : 120Vac 60Hz

Regulations : CISPR B QP (3M)
Polarity : VERTICAL

Model : NP-2160
Temp/Humidity : 23℃ / 55%
Memo :

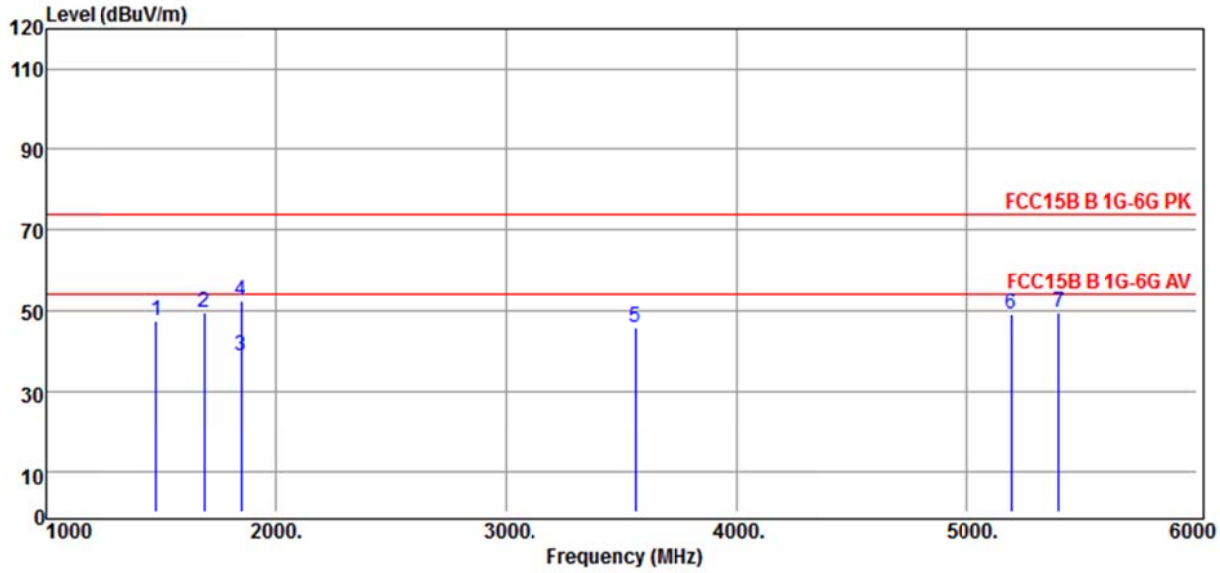


	Freq MHz	Meter Level dBuV	System Factor dB/m	Cable Loss dB	Antenna Factor dB/m	Preamp Gain dB	Real Level dBuV/m	Limit Line dBuV/m	Margin dB	Remark
1	134.76	44.36	-7.70	1.09	20.21	29.00	36.66	40.00	-3.34	QP
2	325.85	44.90	-6.30	1.90	20.62	28.82	38.60	47.00	-8.40	QP
3	364.65	41.97	-5.24	2.04	21.45	28.73	36.73	47.00	-10.27	QP
4	390.84	45.55	-4.47	2.12	22.08	28.67	41.08	47.00	-5.92	QP
5	456.80	41.69	-2.69	2.31	23.42	28.42	39.00	47.00	-8.00	QP
6	807.94	35.45	4.97	3.20	28.06	26.29	40.42	47.00	-6.58	QP

System Factor = Cable Loss + Antenna Factor - Preamp Gain
Real Level = Meter Level + System Factor
Margin = Real Level - Limit Line

Date:2018-1-19

Site : GCC_RE_01
Regulations : FCC15B B 1G-6G PK
RBW : 1000 KHz VBW : 1000 KHz SWT : Auto
Polarity : HORIZONTAL
EUT : Network Video Recorder
Model : NP-2160
Mode : Recording 1920*1080
Temp/Humidity : 23℃ / 55%
Voltage : 120Vac 60Hz
Memo :

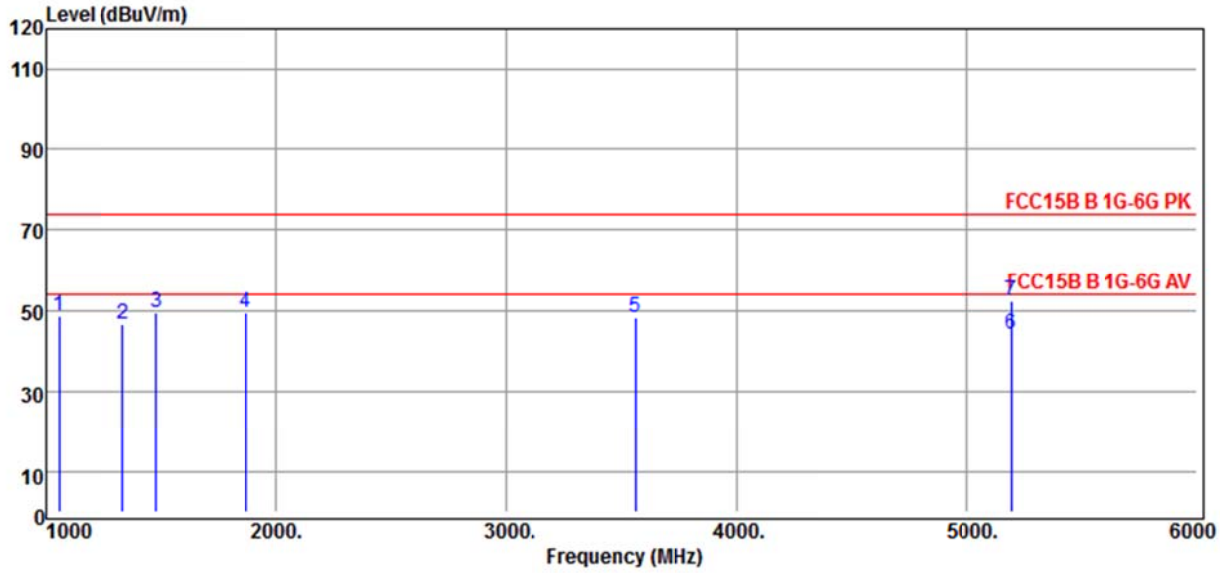


	Freq MHz	Meter Level dBuV	System Factor dB/m	Cable Loss dB	Antenna Factor dB/m	Preamp Gain dB	Real Level dBuV/m	Limit Line dBuV/m	Margin dB	Remark
1	1480.00	62.82	-15.43	3.38	28.29	47.10	47.39	74.00	-26.61	Peak
2	1685.00	63.27	-13.78	3.62	29.59	46.99	49.49	74.00	-24.51	Peak
3	1845.00	50.86	-12.36	3.81	30.72	46.89	38.50	54.00	-15.50	Average
4	1845.00	64.57	-12.36	3.81	30.72	46.89	52.21	74.00	-21.79	Peak
5	3560.00	54.79	-9.13	4.75	32.92	46.80	45.66	74.00	-28.34	Peak
6	5195.00	54.71	-5.54	6.56	34.66	46.76	49.17	74.00	-24.83	Peak
7	5400.00	54.61	-5.39	6.71	34.62	46.72	49.22	74.00	-24.78	Peak

System Factor = Cable Loss + Antenna Factor - Preamp Gain
Real Level = Meter Level + System Factor
Margin = Real Level - Limit Line

Date:2018-1-19

Site : GCC_RE_01
Regulations : FCC15B B 1G-6G PK
RBW : 1000 KHz VBW : 1000 KHz SWT : Auto
Polarity : VERTICAL
EUT : Network Video Recorder
Model : NP-2160
Mode : Recording 1920*1080
Temp/Humidity : 23℃ / 55%
Voltage : 120Vac 60Hz
Memo :



	Freq MHz	Meter Level dBuV	System Factor dB/m	Cable Loss dB	Antenna Factor dB/m	Preamp Gain dB	Real Level dBuV/m	Limit Line dBuV/m	Margin dB	Remark
1	1055.00	64.73	-16.01	2.88	28.12	47.01	48.72	74.00	-25.28	Peak
2	1335.00	62.21	-15.63	3.21	28.23	47.07	46.58	74.00	-27.42	Peak
3	1480.00	64.97	-15.43	3.38	28.29	47.10	49.54	74.00	-24.46	Peak
4	1865.00	61.59	-12.20	3.83	30.85	46.88	49.39	74.00	-24.61	Peak
5	3560.00	57.14	-9.13	4.75	32.92	46.80	48.01	74.00	-25.99	Peak
6	5195.00	49.65	-5.54	6.56	34.66	46.76	44.11	54.00	-9.89	Average
7	5195.00	57.80	-5.54	6.56	34.66	46.76	52.26	74.00	-21.74	Peak

System Factor = Cable Loss + Antenna Factor - Preamp Gain
Real Level = Meter Level + System Factor
Margin = Real Level - Limit Line